

Coilin (D2L3J) XP® Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IF-IC	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 80	Source/Isotype: Rabbit IgG	UniProt ID: #P38432	Entrez-Gene Id: 8161
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Product Usage Information**Application**

Western Blotting
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:800

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Coilin (D2L3J) XP® Rabbit mAb recognizes endogenous levels of total coilin protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human coilin protein.

Background

The nuclear protein coilin (COIL) is found in eukaryotic nucleoplasm and serves a marker for sub-organelles known as Cajal bodies (1,2). Cajal bodies (CB) are nuclear structures that are home to various RNA-processing complexes, including those responsible for pre-mRNA splicing, processing of rRNA and histone pre-mRNA, and telomere maintenance (1-3). The presence of coilin protein is essential for CB formation, and the protein plays a role in maintaining Cajal body structural integrity (4,5). Research studies indicate that coilin binds RNA, including telomerase RNA (hTR), pre-rRNA, and U2 snRNA, in addition to DNA (5). Additional research indicates that coilin protein may exhibit specific RNase activity towards hTR and U2 snRNA transcripts, and that this activity may be regulated through phosphorylation of coilin (6).

Background References

1. Dundr, M. (2012) *Curr Opin Cell Biol* 24, 415-22.
2. Lam, Y.W. et al. (2002) *Mol Biol Cell* 13, 2461-73.
3. Andrade, L.E. et al. (1991) *J Exp Med* 173, 1407-19.
4. Hebert, M.D. (2013) *Int J Biochem Cell Biol* 45, 1314-7.
5. Broome, H.J. and Hebert, M.D. (2012) *PLoS One* 7, e36300.
6. Broome, H.J. et al. (2013) *Biol Open* 2, 407-15.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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